

*woodsoniana* was apparently included in *E. tuxtliensis* in the Flora of Guatemala (Fieldiana, Bot. 24(8): 334–407. 1966) as well. Presumably all Pacific coast collections of *E. "tuxtliensis"* are actually *Prestonia woodsoniana*.

It should be noted that my transfer of Monachino's epithet to *Prestonia* reflects no firm opinion that this species really belongs in that genus. Rather, I am merely accepting Woodson's judgement to that effect. The definitive character

of *Prestonia*, the faucal annulus around the mouth of the corolla tube, is so weakly defined in *P. woodsoniana* as to be virtually non-existent. Nevertheless, the specialist in Echioideae considered this plant best referred to *Prestonia* and I assume that that remains the best placement pending another revision of the genus.

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## ALSTONIA (APOCYNACEAE): ANOTHER PALAEOTROPICAL GENUS IN CENTRAL AMERICA

Representatives of several palaeotropical genera have been discovered in Central America in recent years. So many examples of this pattern have now turned up (see Gentry, 1982: 124–125) that this disjunction is no longer surprising, if no less interesting. Presumably many of these genera with Central American range disjunctions, usually with relationships to Asian rather than to African taxa, reflect remnants of a widespread tropical Laurasian Tertiary flora (cf. Raven & Axelrod, 1974; Gentry, 1982).

While preparing a summary of Apocynaceae taxonomy for the Missouri Botanical Garden's weekly Floristic Taxonomy Seminar, I was startled to realize that the endemic Central American genus *Tonduzia* looks suspiciously similar to many species of the widespread palaeotropical genus *Alstonia*. Further study revealed that the striking resemblance is a real one and *Tonduzia* should be reduced to the synonymy of *Alstonia*. Indeed such a reduction was proposed long ago by Pichon (1947), who noted that there is nothing to distinguish *Tonduzia* from *Alstonia* and reduced it to a section of that genus. Although Pichon treated *Tonduzia* as a distinct section of *Alstonia*, it constitutes a poorly demarcated one: every one of the distinguishing features of section *Tonduzia* are shared with one of the other two sections of *Alstonia* that he recognized. That even such an inveterate generic splitter as Pichon (cf. comments in Gentry & Tomb, 1979: 756–757; Gentry, 1980: 8), who proposed two new segregate genera from *Alstonia* and resurrected two others in the same paper in which he sank *Tonduzia*, considered *Tonduzia* congeneric with *Al-*

*stonia* should have rendered the merger definitive. However, Pichon's proposal appears to have been overlooked by all subsequent workers (e.g., Standley & Williams, 1969; Nowicke, 1970; Woodson, in herb.) and *Tonduzia* is still recognized in Willis' Dictionary (Airy Shaw, 1973) and in all North American herbaria.

Pichon (1947) was aware that several species of *Tonduzia* had been described but had seen material of only the type species, *Tonduzia longifolia* (DC.) Mgf. (*T. parvifolia* Donn. Sm. is a synonym of *T. longifolia*) and refrained from proposing new combinations for the other species. Thus the only specific epithet available for a Neotropical species of *Alstonia* is *A. longifolia* (DC.) Pichon. Three species of *Tonduzia* are now accepted (Standley & Williams, 1969) necessitating the following new combinations in *Alstonia*:

***Alstonia macrantha*** (Woods.) A. Gentry, comb. nov. *Tonduzia macrantha* Woods., Ann. Missouri Bot. Gard. 24: 12. 1937. TYPE: Guatemala. Quezaltenango: Skutch 871 (MO).

*T. longipedunculata* Woods., Publ. Field Mus. Nat. Hist., Bot. Ser. 23: 78. 1944. TYPE: Guatemala. Sololá: Steyermark 47313 (MO).

***Alstonia pittieri*** (Donn. Sm.) A. Gentry, comb. nov. *Tonduzia pittieri* Donn. Sm., Bot. Gaz. 49: 456. 1910. TYPE: Guatemala. Guatemala: Deam 6098 (MO).

Recognition of *A. pittieri* as specifically distinct is on rather tenuous grounds as the broader leaves and relatively high stamen insertion cited

in the Flora of Guatemala as distinguishing it from *A. longifolia* are not always associated. While additional collections are needed to resolve the status of *A. pittieri*, *A. macrantha* is easily recognized by its larger flowers.

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## THE GENUS *BOTRYARRHENA* IN VENEZUELA

Since the publication of the author's Rubiaceae of Venezuela (Steyermark, 1974), a number of new taxa of the family have been added to the flora of Venezuela. In addition to various species new to the republic, two genera of Rubiaceae, *Joosia* and *Botryarrhena*, previously unreported for Venezuela, are newly recorded. The Andean genus, *Joosia*, was collected by the author, accompanied by Ronald Liesner and Angel González, in the state of Táchira, while *Botryarrhena*, a monotypic genus, previously known only from Amazonian Brazil, was discovered by Gerrit Davidse, accompanied by Otto Huber and Stephen S. Tillett. A second, Venezuelan species of *Botryarrhena* is described here.

Ducke (1933) described *Botryarrhena* as a new genus of the subtribe Eugardenieae of the tribe Gardenieae, and believed it to be related to the genus *Retiniphyllum*, although the latter is generally relegated to a separate tribe, Retiniphyllae. The species, *B. pendula*, was stated by Ducke to resemble *Stachyarrhena penduliflora* K. Schum., another member of the tribe Gardenieae, in having simply racemose inflorescences, but otherwise differing from the genus *Stachyarrhena* in the possession of hermaphroditic instead of dioecious flowers, bilocular ovary with two ovules in each cell instead of a 4-5-celled ovary with numerous ovules in each cell, and an elongated, bilobed stigma.

A comparison of the Venezuelan collection, known only from fruiting material, with the Brazilian species, indicates that the two represent

different taxa, the Venezuelan plant having short, erect infructescences with shorter, more crowded pedicels, larger leaves, and more prominently reticulate tertiary venation.

The Venezuelan collection, the second species known for the genus, may be described as follows:

#### *Botryarrhena venezuelensis* Steyermark, sp. nov.

Arbol 10-metralis; stipulis late deltoideis obtusis 4 mm longis 6 mm latis; foliis oppositis petiolatis, laminis late oblongo-oblanco-latis vel oblongo-ellipticis apice late obtusis basi cuneatim angustatis 22-30 cm longis 9-13.5 cm latis utrinque glabris, nervis lateralibus utroque latere 12-13, supra impressis subtus elevatis, venulis tertiariis utrinque prominulis valde reticulatis; petiolis 2-3 cm longis; calyce hypanthioque 3 mm longo (hypanthio 2 mm longo 2.5 mm lato glabro; calyce 1.5 mm longo 3 mm lato apice truncato paullo repando glabro); bracteola sub flore lanceolato acuto 2 mm; pedicellis fructiferis 1.5-2 mm longis; infructescentia 3-5 cm longa simplice vel prope basin semel ramosa; ovario 2-loculare, orulis in quoque loculo 2; fructibus congestis subglobosis apicem versus angustatis, apice paullo elevato truncato munitis, exocarpio 0.5 mm crasso, endocarpio glabro; seminibus subgloboso-ovalibus extremitatibus rotundatis 10 mm longis 6-8 mm latis glabris.

Tree 10 meters tall with all parts glabrous. Stipules broadly deltoid, obtuse, 4 cm long, 6 mm wide. Leaves opposite, petiolate, broadly oblong-oblanco-late to oblong-elliptic, somewhat abruptly narrowed to a broadly obtuse apex, cuneately narrowed at the base, 22-30 cm long, 9-13.5 cm wide; lateral nerves 12-13 on each